SHOULD STUDENTS STUDY

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BY

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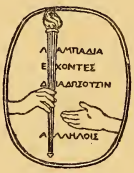

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PART I

SHOULD STUDENTS STUDY?

I

COLLEGE LIFE

"DO not let your studies interfere with your college education." This motto adorns the walls of many a student's room. It is his semi-humorous way of expressing his semi-conviction that studies do not count —that the thing to go in for is "College Life." This thing, made up of intercollegiate athletics and lesser diversions, looms large in the student's mind. This frequenter of college walks and halls and tombs and grand stands I call a "student" for want of

a safer term, though it sometimes does him injustice. He has sundry answers to the question whether students should study.

Not Merely an Academic Question

In academic circles this is not merely an academic question. The boy who goes to college faces it, in one form or another, again and again. Indeed, before he dons his freshman togs his mother tells him not to study too hard, and his father gives him to understand that deficiencies in scholarship, which do not end his college career, will be overlooked if he makes the football team. He observes the boys who return from college; he finds that their language and their clothes bear marks of a higher education. He hears accounts of initiations and celebrations. His chum's big brother takes him aside and tells him confidentially just how he must conduct himself in order to be rushed for the right fraternity. Everybody tells him he must be a "good fellow"; few discourse upon the joys of the curriculum. Whether students should study may remain

with him an open question, but he begins to doubt whether students do study.

With his mind set on going to college, he reads all that comes to hand on the subject. The newspapers give him vivid details of the games, big and little, with full-page pictures of the heroes. They report night-shirt parades, student riots, dances, beer-nights—anything but studies. Now and then they do give space to a professor, if he has been indiscreet, or has appeared to say something scandalous which everybody in college knows he did not say, or if he is sued for divorce. They even spare him an inch or two if he is awarded a Nobel prize.

The lad reads stories of College Life. How they glow with escapades! His mind becomes a moving picture of thrilling escapes, of goats enthroned on professorial chairs, of freshies ducked in chilling waters, of battalions of rooters yelling with the precision of a cash-register. Now and then there is mention of lectures and examinations, for it appears that the sophisticated youth knows many devices for "getting by"

these impediments to the unalloyed enjoyment of College Life. Surely the high-school teacher who spoke with such enthusiasm about the lectures of "Old Socrates" must be hopelessly behind the times. Surely nobody goes to college nowadays for lectures.

After entering college the boy continues his studies in the philosophy of education under the tutelage of a sophomore. His tutor informs him that the object of education is the all-round man. The faculty and the curriculum, he explains, are obstacles, but the upper classes rescue the poor freshman from pentagonal and other primitive shapes and round him out with smokers, hazing, initiations, jamborees, and visits to the big city, where he makes the acquaintance of drinks and ladies far more brilliant-hued than those of his somber native town. He is told that he is "seeing life," and that college will make an all-round man of him yet, if the faculty do not interfere with his education.

If this sophomoric philosophy leaves any doubts to puzzle the freshman, they may be

cleared away by the alumni who return to warm up the fraternity-house with stories of the good old days. And, of course, the lad joins a fraternity before giving his course of study a thought. For what is college to a non-fraternity man? Merely an institution of learning. To the man with the Greek-lettered pin the fraternity is the *sine qua non* of higher education, the radiant whole of which the college is a convenient part, providing for the fraternity a local habitation.

And so the undergraduate stretches his legs before the hearth and hears the wisdom of the "Old Grad." In his day, it seems, things were different. The students were not such mollycoddles, the beer flowed more freely, and the faculty did not try to run things. No, sir, in the good old days the faculty did not spoil College Life. What a glorious celebration after that 56 to 0 game, when every window in old West Hall was broken and the stoves were thrown down-stairs!

"I tell you, boys," cried the "Old Grad," warming his feet by the fire and his imagination by the wonder of the freshmen, "it is

not what you learn in your classes that counts. It is the College Life. Books, lectures, recitations—you will forget all that. Nobody cares after you graduate whether you know any Latin or algebra, unless you are a teacher, and no man can afford to be a teacher nowadays. But you will remember the College Life as long as you live."

Some of the alumni would have a different story to tell, no doubt, but they do not get back often for fraternity initiations. Perhaps they are too busy. And again, they may have been nothing but "grinds" during their college days.

The Respectable Grade of Mediocrity

Whatever we may think of the "Old Grad's" remarks, the idea does prevail in many a college that the most important enterprises are found in the side-shows, conducted by the students themselves, while the faculty present more or less buncombe performances in the main tent. Woodrow Wilson said something to this effect before he gave up trying to make boys take their

studies seriously in favor of an easier job. Dean Fine said to the alumni of Princeton University: "The typical boy entering a college like Princeton in these days is much more vitally interested in other boys and in sports than in books. To him the lure of college is not in its studies, but in its life." Professor Churchman of Clark College regards success in athletics and the social life of the college as "the honest ambition of an appalling proportion of fathers and mothers who are sending their sons to fashionable colleges, in the same spirit that accompanies their daughters to fashionable finishing-schools." One father, whose son triumphed on the gridiron and failed in his studies, said to the dean of Harvard College, "My son's life has been just what I wanted it to be."

In 1903 a committee of the Harvard faculty, after extensive investigation, found that the average amount of study was "discreditably small." The committee declared that there was "too much teaching and not enough study," and that ambitious

students find little incentive to take honors. The following year another committee reported that the student body did not regard grades in college courses as any test of ability. In 1908 still another committee came to this conclusion: "Contentment with mediocrity is perhaps the greatest danger that faces us, and it is closely connected with the feeling among the students that college is a sort of interlude in serious life, separated from what goes before and dissociated from what follows." A large majority of seniors at Harvard expressed this belief in response to a questionnaire, and students elsewhere have expressed the conviction in a score of ways.

Many students look upon scholarship as a menial servant in the household of College Life, tolerated for a time in order that the abode may be free to welcome its convivial guests. They regard the social light of the fraternity and the hero of the gridiron as the most promising candidates for success in life. The valedictorian appears to them too confined in his interests to meet successfully

anything beyond the artificial tasks of the class-room. He—poor fellow!—is supposed to be doomed to failure in real life. Wherefore the respectability of "The Gentleman's Grade"—the sign of mediocrity in scholarship. Wherefore the epithet "grind," with its superlative "greasy grind," which sums up the contempt of the "good fellow" for the man who makes hard study his chief collegiate interest.

In many a student group the boy who thus speeds up and passes his fellows is treated as a "scab." And in many a faculty group the idea seems to be:

> 'Tis better to have come and loafed
> Than never to have come at all.

Such ideas find fertile ground in high schools, and the seed spreads even to the virgin soil of the kindergarten. The new tree of life—the painless education, by the do-what-you-please, when-you-please, how-you-please method—is said to have been imported from Italy. It may have acquired

only its label abroad, after the fashion of imported wines. Certainly its foliage is much like our native stock of the American college variety.

Even upon the correspondence schools are grafted some branches of the tree of College Life. It is said that a father in Hood River, Oregon, found his son standing on his head in the crotch of an apple-tree, waving his legs in the air and giving a college yell.

"Come down, boy," he cried. "Are you crazy?"

"No, father; leave me alone," said he. "I have just started my correspondence-school course, and the sophomores have written me to go and haze myself."

II

DIFFERENCES—EAST AND WEST

THERE are differences among the colleges, to be sure. Let us admit that before we go further, so that any one may feel free to make such exceptions as his knowledge or his loyalty seems to warrant. The idea that College Life in "caps" should be the text, with studies as a foot-note, has not gripped all institutions with the same force. In some the idea seems to be a settled conviction; in others, little more than a suspicion.

I have visited a hundred or more colleges, from the University of Maine in the Northeast to the University of Redlands in the Southwest. I have learned what I could from the oldest university at Cambridge, Massachusetts, and from the youngest at

Houston, Texas. Along twenty-five thousand miles of travel, I have tried to determine, from what students say and do, to what extent they deem study worth the effort. Their estimates vary.

Colleges cannot be readily classified on the basis of the earnestness of purpose with which students greet the curriculum. It does not appear that State universities stand higher or lower in this regard than privately supported institutions. Nor are there class distinctions of this kind between small and large colleges, between sectarian and non-sectarian colleges, or even between universities with millions of endowment and those endowed with poverty and hopes. There appears to be a difference between schools of the East and schools of the West; but other generalizations, though frequently made by overzealous friends of particular schools, appear to be based on too few cases.

I am speaking, always, of the central tendencies of groups—of the mode, as sociologists would say, and not of the few extreme cases in the surface of distribution.

Nearly every college has its distinctive feature, which balks classification. One might conclude, from the studiousness of the boys at the College of the City of New York, that large, free, urban universities are the usual resorts of serious-minded youth. Such a conclusion would ignore the racial factor, more important in this instance than any other. The intellectual achievements of older graduates of Williams and Bowdoin and Amherst appear to make out a strong case for the small, sectarian, New England country college. But a generation or two ago there were no large, free, urban institutions. Evidence is not available sufficient to prove that the recent graduates of the small country colleges have finer intellectual enthusiasms than the recent graduates of any other group of colleges. Conclusions based on the spirit of a generation ago are usually misleading as present-day guides. Such conclusions may or may not be misleading in this case. American colleges changed vitally during the past generation, and a few are changing rapidly to-day.

With these qualifications I venture one generalization: students of the younger Western colleges are more worthy of the name than those of the older Eastern colleges. They come through greater sacrifices and with more serious purposes. This is what history tells us to expect of the frontier. It is, moreover, the usual report of those who have taught in the East and in the West. Eagerness for knowledge is one manifestation of the enthusiasm of youth in a young country. In many of the older seats of learning, responsiveness to the efforts of instructors is in bad form. To do more than the assigned lesson, or to tarry after the lecture for more help, is to risk one's reputation. "Harvard indifference" is not Harvard indifference; it is the attitude toward studies of young men anywhere who go to college as a matter of course, with no dominant purpose beyond the desire to enjoy College Life. They find that there is little in it; even their interest in intercollegiate athletics has to be coaxed by rallies and organized into cheers. They find out that a

man who has nothing to do but amuse himself has a hard job. Spontaneous delight over anything is not to be expected. To increase in years and in resources and yet retain the splendid enthusiasm of poverty and youth appears to be as difficult for institutions as for men and women.

Yet so rapidly are colleges changing that conditions seem to pass away under our very scrutiny. The West of to-day is a new West. Even the far West is already a long generation beyond frontier days. The colleges are keeping pace with the country, not only in material prosperity, but in spirit and in ideals. A larger proportion of the families are well-to-do, and a larger proportion of boys and girls resort to higher schools. Growth begets the desire to grow. Numbers seem necessary for winning games and impressing legislatures. College expenses grow, too. Easier communication with Eastern universities leads to further imitation. Thus sturdy Western institutions of pioneer days tend to lose their individuality. They reveal signs of what they call progress. They not only

standardize their units of admission, but also their ideals. They tend to become intellectual democracies and social aristocracies; in the beginning they were quite the reverse. The change has not gone so far in the West —certainly not in the private colleges of the West—but the direction is unmistakable.

Again, let me say, I speak in terms of group tendencies; exceptions leap to mind with every statement.

III

COLLEGE LIFE AND COLLEGE STUDIES

THE students have given us their own word for it that College Life is more important than college studies; but Professor Gayley of the University of California calls this worshiping the idol of Incidental Issues. "As if character were worth anything without mind, and were any other, as President Wilson has wisely said, than the by-product of duty performed; or that the duty of the student were any other than to study. They accept the fallacy that the gauge of studentship is popularity, and that popularity during academic years is to be won by hasty achievement and the babbling strenuous life, by allegiance to a perverted image of the Alma Mater, by gregariousness, by playing at citizenship. Of this popularity

the outward and visible index is mundane prominence and the lightly proffered laurel of the campus."

President Hyde further expressed the common idea of college teachers when he said, in an address to freshmen: "Put your studies first; and that for three reasons: first, you will have a better time in college. Hard work is a necessary background for the enjoyment of everything else. Second, after the first three months you will stand better with your fellows. At first there will appear to be cheaper roads to distinction, but their cheapness is soon found out. Scholarship alone will not give you the highest standing with your fellows; but you will not get their highest respect without showing that you can do well something that is intellectually difficult. Third, your future career depends upon it."

But does your future career really depend upon it? That question may well be answered by college faculties with something more than their opinions. On this subject teachers are regarded as prejudiced au-

thorities. They are supposed to believe in the importance of their own jobs. They may exhort students to study on the ground that success in undergraduate studentship leads to the kind of achievement that men desire in the life beyond Commencement. But boys think they know better.

Is high scholarship worth the effort? In other words, have colleges devised courses of study which bear any relation to the probable careers of their students? Is there any evidence that a man who attains high marks is more likely to achieve success after graduation than a man who is content with passing marks?

If there is any such connection between success in studies and success in life, it should be possible to measure it by approved statistical methods, and thus arrive at conclusions of more value as guidance to the undergraduate than the opinion of any man. Both the professor and the sport are in danger of arguing from exceptional instances — each is likely to find striking cases in proof of his preconceived notions;

each is inclined to scorn the opinion of the other.

But conclusions drawn from large numbers of cases, not subject to invalidating processes of selection, and employing terms that are adequately defined for the purpose at hand, must command the respect of all men. If such conclusions do not support the contention that it pays to study, there is something radically wrong with the professor's part of college affairs; different kinds of achievement should receive academic distinction and new tests should be devised. If, on the other hand, present standards for rating students predict their future success with any degree of accuracy, the facts should be discovered and used everywhere to combat the prevalent undergraduate opinion. Whatever the outcome of such studies, we should have them in larger numbers, in many places, protected by every safeguard of scientific method. We may well ask, first, whether promise in the studies of one period becomes performance in the studies of a later period.

IV

PROMISE AND PERFORMANCE

ARE good students in high school more likely than others to become good students in college? Prof. Walter F. Dearborn tried to answer that question for the State of Wisconsin. He compared the records of hundreds of students at the University of Wisconsin with their records in various high schools. He found that above 80 per cent. of those who were in the first quarter of their high-school classes remained in the upper half of their classes throughout the four years of their university course, and that above 80 per cent. of those who were in the lowest quarter in their high-school classes failed to rise above the line of mediocre scholarship in the university. The parallelism is so striking that we are justified in con-

cluding that, except in scattering cases, promise in the high school becomes performance in the college. Indeed, only one student out of nearly five hundred in this investigation who fell among the lowest quarter in the high school attained the highest rank in the university.

Such evidence has led Chancellor Edward C. Elliott, of Montana, to assert that although "the world may not value highly school 'marks,' the fact remains, nevertheless, that only a specious skepticism would deny that there was no correlation between secondary, school success and college success. At any rate, in Wisconsin, there seems to be a demonstrable and positive relationship between the valuation of abilities of pupils while in high school and in university."

"These facts," concludes Professor Dearborn, "effectively dispose of the notion that students in any great numbers do differently in scholarship in the university from what they do in the high school. There is little or no foundation in the facts thus adduced for the belief, cherished most frequently

perhaps by the less successful and indifferent students of the high school, that the bright pupils often 'fag out' or find that the university courses demand more sterling or, at least, different, abilities from those demanded by the high school, and that others then find opportunity to show what is in them, and soon surpass their more precocious but less enduring classmates. All this may occur in individual cases, but quite the opposite is the rule. Those who get the best start in the high school maintain their advantage in the university."

Of course, a boy may loaf in high school and take his chance of being the one exception among five hundred. But he would hardly be taking a sporting chance; it would be rather a fool's chance. The risk would be less in going over Niagara Falls in a barrel.

The University of Chicago found that high-school students who failed to attain an average rank higher than the passing mark, by at least 25 per cent. of the difference between that passing mark and one hun-

dred, failed in their university classes. The faculty therefore decided not to admit such students. Exceptions were made of the most meritorious cases, but few of these exceptions made satisfactory records in the university.

At Columbia University, in recent years, the grades attained in entrance examinations have proved important indications of the candidates' college careers. Of the men entering in 1912, for example, the first in the entrance records held his place in the college, and nine of the first ten remained in the first ten throughout the freshman year. A comparison of all the high-school grades and all the college grades of the class of 1916 at Union College gives an equally positive correlation.

Basing its policy upon such evidence as this, Reed College, at the beginning of its work, decided to admit, as a rule, only students who ranked in the first third of their preparatory-school classes. Some exceptions were made. Twenty per cent. of those admitted were known to be below the

first third, and 2 per cent. below the median line. In all cases these candidates were regarded as the most promising of those who fell below the first third in high-school rank, yet almost without exception they have failed to rise above the lowest quarter of their college classes. Thus, it appears that in Oregon, as in Wisconsin and Illinois and New York, those who get the best start in the lower schools maintain their advantage in the upper schools; few of their classmates overtake them.

But why strive for high rank in college? Why not wait for the more "practical" studies of the professional school? Hundreds of boys the country over declare to-day that it makes little difference whether they win high grades or merely passable grades in the liberal arts, since these courses have no definite bearing on their intended life-work. Almost invariably they are ready to admit that they must settle down to serious effort in the studies of law, medicine, engineering—that is to say, in professional schools. Even the sport who makes the grade of mediocrity

his highest aim as a college undergraduate, fully intends to strive for high scholarship in his professional studies. Does he often attain that aim? That is the question.

And that, fortunately, is a question we may answer with more than opinions. We may take, for example, all the students who graduated from Harvard College during a period of twelve years and entered the Harvard Medical School. Of the 239 who received no distinction as undergraduates, 36 per cent. graduated with honor from the Medical School. Of the 41 who received degrees of A.B. with high honor, more than 92 per cent. took their medical degrees with honor.

Still more conclusive are the records of the graduates of Harvard College who during a period of twenty years entered the Harvard Law School. Of those who graduated from college with no special honor, only 6½ per cent. attained distinction in the Law School. Of those who graduated with honor from the college, 22 per cent. attained distinction in the Law School; of those who graduated

with great honor, 40 per cent.; and of those who graduated with highest honor, 60 per cent. Sixty per cent.! Bear that figure in mind a moment, while we consider the 340 who entered college "with conditions"—that is to say, without having passed all their entrance examinations—and graduated from college with plain degrees. Of these men, not 3 per cent. won honor degrees in law.

If a college undergraduate is ready to be honest with himself, he must say, "If I am content with mediocre work in college, it is likely that the men in my class who graduate with honor will have three times my chances of success in the Law School, and the men who graduate in my class with highest honor will have nearly ten times my chances of success." So difficult is it for a student to change his habits of life after the crucial years of college that not one man in twenty years—not one man in twenty years—who was satisfied in Harvard College with grades of "C" and lower gained distinction in the studies of the Harvard Law School.

The same relation appears to persist between the promise of Yale undergraduates and their performance in the Harvard Law School. If we divide the 250 graduates of Yale who received their degrees in law at Cambridge between 1900 and 1915 into nine groups, according to undergraduate scholarship, beginning with those who won the highest "Senior Appointments" at Yale and ending with those who received no graduation honors, we find that the first group did the best work in their studies of law, the second group next, the third group next, and so on, in the same order, with but a single exception, to the bottom of the list. The performance at Harvard, of each of the eight groups of Yale honor graduates, was in precise accordance with the promise of their records at Yale.

Apparently the "good fellow" in college, the sport who does not let his studies interfere with his education, but who intends to settle down to hard work later on, and who later on actually does completely change his habits of life, is almost a myth. At least his record

does not appear among those of thousands of students whose careers have been investigated under the direction of President Lowell and others. It seems that results are legal tender, but you cannot cash in good intentions.

"Dignified credit to all," cries the billboard. "Enjoy your new suit now, and pay for it later." Many a boy, lured by the instalment plan, expects to get an education on deferred payments in effort, only to find that there is no credit for him, dignified or otherwise. What his honest effort has paid for in full is his to-day; nothing more by any chance whatever.

V

SUCCESS IN STUDIES AND IN LIFE

BUT why strive for the highest standing in professional school? Let us pursue the inquiry one step further. Let us ask whether success in studies gives promise of success in life. As far as the study of law is concerned, we may answer at once that the known success of the honor graduates of the Harvard Law School is one reason why even college undergraduates at Cambridge believe that law students should study law—hard and seriously. For the same reason, leading law-offices the country over give preference to honor graduates of law-schools.

But what is success in life? That is the first problem. It is one difficulty that confronts every one who attempts to speak with certainty about the meaning of education.

There is no accepted definition of the aim of education. The philosopher has been likened to a blind man in a dark cellar hunting for a black cat that isn't there. The aim of education seems as elusive as the proverbial black cat.

Nevertheless, we do not close our schools. We strive for concrete ends, such as proficiency in handwriting, aware that any particular end may soon be regarded as not worth the effort to attain it. Until recently we could not say even what we meant by proficiency in handwriting, for we had not attempted to define our aim or devise a measure of our progress toward it. We still speak of educational processes and results about as accurately as the Indians spoke of temperature. We still speak of the science of education without seeming to understand that there is no science without precise measurement. From our fragmentary beginnings to an adequate science of education is a long journey, and the road is beset with difficulties. While we struggle along this road, generations will come and go. We will help them

to attain what seem, for the time, the proper aims of education. And each individual will strive for what seems to him success in life.

As one measure of success in life, we may take the judgment of certain men. In so far as we accept their judgment our findings concerning the relation between college studies and this kind of success will seem important to us. Here, as in most questions of educational aim, we can do no better for the present than take the consensus of opinion of competent judges.

Using this measure for success, I endeavored to find out whether the members of the class of 1894 of Harvard College who had become notable in their life-work had been notable in their studies. I therefore asked three judges to select, independently, the most successful men from that class. I chose as judges the dean of the college, the secretary of the Alumni Association, and a professor in Columbia University who is a member of the class, because I thought that these men came nearer than any others to knowing all members of the class. I left each judge free

to use his own definition of success, but I asked them not to select men whose achievements appeared to be due principally to family wealth or position. The judges agreed in naming twenty-three successful men. I then had the entire undergraduate records of these men accurately copied from the college records and compared with the standing of twenty-three men chosen at random from the same class.

The result was striking. The men who were thus named as most successful attained in their college studies nearly four times as many highest grades as the random selection. To the credit of the successful men are 196 "A's"; to the credit of the other men, only 56.

Following a similar plan, three judges selected the most successful men among the graduates of the first twenty-four (1878–1901) classes from the University of Oregon. An examination of the scholarship records of these men showed that 53 per cent. had been good students and 17 per cent. had been weak students. Of the graduates who were

not regarded as successful, 52 per cent. had been weak students and only 12 per cent. had been good students.

Similar results have been found by Prof. A. A. Potter, Dean of the Kansas State Agricultural College, in an unpublished study of the relationship between superiority in undergraduate scholarship and success in the practice of engineering as indicated by salaries received. The director of the School of Forestry of Yale University has collected evidence of the same kind in an unpublished study of the graduates of the Yale School of Forestry. It appears that about 90 per cent. of the men who have had conspicuous success in the field of forestry were among the better students in their professional studies. Dean Sills of Bowdoin College has made a long list of famous graduates of Bowdoin and shown that their scholarship records were, as a rule, noteworthy. The graduates of West Point—General Grant to the contrary notwithstanding—follow the same general rule: high scholarship at the academy is the safest single criterion of

success in the Army. President Thwing of Western Reserve University, the historian of higher education in America, says that he has found no exception, in the records of any American college, to the general rule that those who achieve most before graduation are likely to achieve most after graduation.

The list of the first ten scholars of each of the classes that graduated from Harvard College in the sixth decade of the last century, as presented by William Roscoe Thayer, is a list of men eminent in every walk of life. Indeed, it is likely that the first quarter in scholarship of any school or college class will give to the world as many distinguished men as the other three-quarters.

What can we say in this connection of the 420 living graduates of the ten Wesleyan University classes from 1890 to 1899? Just this: Of the men in that group who graduated with highest honors, 60 per cent. are now regarded as distinguished either by *Who's Who in America* or by the judgment of their classmates; of those who were elected to Phi Beta Kappa—the scholarship honor

society—30 per cent.; of those who won no superior honors in scholarship, only 11 per cent. Of the men now living who graduated from Wesleyan University between 1860 and 1889, 10 per cent. are listed in *Who's Who:* of those who received high honors in scholarship during this period, 50 per cent.; of those who attained no distinction as scholars, only 10 per cent.

In the course of a careful treatment of this subject Professor Nicholson says:

"Turning now to a comparison of honors achieved in college and after graduation, and considering first the middle group of graduates, the classes of 1860 to 1889, we find that one in six of the living are mentioned in *Who's Who* (100 out of 604). During this period 59 men received high honors at graduation; of this number 28, *just about one-half*, are mentioned in *Who's Who.* Of the 185 elected by Phi Beta Kappa during the same period, the names of 58, *approximately one-third*, are found in the book. And of the 419 who graduated without distinction, only 42, *about one-tenth*, have

achieved success in later life, if *Who's Who* is a fair guide.

"Let us see whether these figures concerning the most representative body of graduates, the thirty middle classes, apply equally well to the later and earlier graduates. The graduates in the first twenty-seven classes, down to 1859, numbered 643, of whom 53 were appointed valedictorians or salutatorians. In the judgment of the writer, supported by that of other members of the faculty, 26 of these high-honor men, *just one-half*, would have appeared in *Who's Who* had such a book been published when they were living. Their careers, as outlined in the *Alumni Record*, clearly entitle them to the claim of distinction. The same judges chose 52 of the 167 Phi Beta Kappa men of the period as men of distinction, again *not far from one-third.* Of the 476 not in Phi Beta Kappa, only 29 could fairly be called distinguished, which is *only about 6 per cent.*"

From the records of 1,667 graduates of Wesleyan University, Professor Nicholson

concludes that of the highest-honor graduates (the two or three leading scholars of each class) one out of two will become distinguished; of Phi Beta Kappa men, one out of three; of the rest, one out of ten.

Concerning the value of *Who's Who* as a criterion of success in life, we may say at least this, that it is a genuine effort, unwarped by commercial motives, to include the men and women who have achieved most worthy leadership in all reputable walks of life. Whatever flaws it may have, it is acknowledged to be the best list of names for such uses as we are now making of it; and it is probable that such changes in the list as any group of competent judges might make would not materially affect the general conclusions we have drawn.

Further proof of the relation between scholarship and success in life was found by Prof. E. G. Dexter. He compared the records, before and after graduation, of the men of twenty-two colleges. Of all the living graduates of these colleges, he found

about 2 per cent. in *Who's Who;* of the honor scholars, he found 5.9 per cent. It thus appears that the chances of this kind of success in life of a good student are about three times the chances of students selected at random. Looking at the records in still another way, we may observe that about 15 per cent. of all graduates are Phi Beta Kappa men. If rank in college has nothing to do with success in life, we should expect to find that 15 per cent. of the graduates in *Who's Who* were Phi Beta Kappa men. But they surpass this expectancy by nearly 100 per cent.

In even larger measure have the very highest scholars fulfilled the promise of their college years. Of the Yale valedictorians, 56 per cent. are included in *Who's Who.* That is to say, a man at the head of his class appears to have more than twenty-five times as many chances of distinction as the man selected at random from among his classmates.

Again, of the 13,705 living alumni of two of the larger New England colleges, 5.4 per

cent. of those who graduated in the first tenth of their classes are included in *Who's Who*, and only 1.8 per cent. of those who graduated in the fourth tenth. With due allowance for the defects of the measures of success here employed, the figures tend strongly to corroborate the conclusions of all other studies. The success of the undergraduate in his formal intellectual education is the safest single measure—though not the only measure—of the success he is likely to achieve in later life.

This is the only country, as President Lowell has observed, where it is popularly believed that superior diligence and aptitude for knowledge are poor preparations for success in life. It is well known that the universities of England and the English people generally have much more respect for scholarship than is common in the United States. One reason is doubtless the eminence for centuries in the Old World of leading university scholars. Of the 384 Oxford University men called to the bar before 1865, 46 per cent. of those who received first-class

honors at Oxford subsequently attained distinction in the practice of law, as indicated by the offices they held. Of the men who were content with pass degrees, only 16 per cent. attained distinction. The list follows:

Of the 92 who received first-class honors,
46 per cent. attained distinction.
Of the 85 who received second-class honors,
33 per cent. attained distinction.
Of the 67 who received third-class honors,
22 per cent. attained distinction.
Of the 61 who received fourth-class honors,
20 per cent. attained distinction.
Of the 271 who received pass-degree honors,
16 per cent. attained distinction.
Of the 58 who received no degrees,
15 per cent. attained distinction.

No student who fell below the second group of scholars at Oxford attained a political distinction of the highest class.

A similar correlation is found between the degree of success of undergraduates at Oxford and their subsequent distinction as clergymen.

Of the first-class men,
68 per cent. attained distinction.
Of the second-class men,
37 per cent. attained distinction.

Of the third-class men,
32 per cent. attained distinction.
Of the fourth-class men,
29 per cent. attained distinction.
Of the pass-degree men,
21 per cent. attained distinction.
Of the no-degree men,
9 per cent. attained distinction.

Success in the Oxford final schools is thus seen to give fairly definite promise of success at the bar and in the church. An extensive study of the careers of Oxford men led Edgar Schuster, of the University of London, to conclude that any selection based on the results of a fairly searching examination of men at the age of twenty-one to twenty-three would probably be, on the whole, a judicious one. In very truth, the boy is father of the man.

A knowledge of all these facts will hardly make thinking as popular as a motion-picture show, but it ought to silence some of those who seek to excuse their mental sloth on the ground that it doesn't matter.

Perhaps that is too great a hope. After some of these comments concerning the attitude of students toward scholarship and

some of these statistics had been published in *Harper's Magazine*, many people declared that students surely would not belittle the achievements of the scholar if they could see such conclusive evidence. Yet the student editors of the *Harvard Illustrated Magazine*, after reading the evidence and presenting what purported to be a summary of the statistics, made the following comment: "We do decry such puerile, silly doctrine. . . . Not so many years ago one of the best poets Harvard ever had was expelled from college because he spent his time working at his interest, the passion of his art, instead of listening to a few moss-back professors repeat lectures twelve years old."

It may be objected that all these statistics cover only those kinds of success that achieve publicity. Are there not men and women doing worthy work in comparative obscurity who should be regarded as successful? Certainly there are, many thousands of them. For obvious reasons, no statistics are available concerning them: all we can say is that we have every reason to

suppose that they are not exceptions to the general rule that the superior service of certain citizens of any community will be found to be correlated with superior scholarship in earlier life.

VI

GENIUS AS A SUBSTITUTE FOR STUDY

"I SUPPOSE all this is intended to spur me to greater effort," says the student of mediocre record. "What is the use? I am no genius."

No more are most men who are called successful. Genius has been defined as "an infinite capacity for taking pains." Edison has put the matter more epigrammatically, if not more elegantly, in calling genius 1 per cent. inspiration and 99 per cent. perspiration. Neither definition is adequate. What the world calls genius has never been accounted for solely by hard work. If both inspiration and perspiration are necessary for success, it is nonsense to ask which is more important. They have no common measure. We do not venture to say whether

sodium or chlorine is the more important element of salt.

The purpose of these definitions is to stress the fact that the advantage of men and women who are accounted successful over all others is seldom genius; the difference is due not so much to native endowment of vision, imagination, and brilliance of mind as to industrious persistence in the pursuit of definite aims. The prancing race-horse makes a spectacular appearance, but he fails you in the long run. He is all speed and no control—useless for a steady job.

We do not mean to say that any man, by taking thought and keeping at it, can add enough cubits to his stature to become a Chopin, or a Shelley, or a Pasteur, or—we should add—even an Edison, great as is his capacity for taking pains and his tireless industry. What we do mean to say is that the genius of such men is enjoyed by exceedingly few of the men and women who are regarded by the world as highly successful. Mr. Roosevelt, for example, can hardly be called a genius. He himself insists that all he has

accomplished is due to dogged persistence and a capacity for hard work. Without these qualities, not a human being—genius or no genius—has ever attained a great success. All the "just-as-good-as" men have not yet found a substitute for hard work.

Between Galileo, Goethe, Mendelssohn, and the rank and file of men there appears to be a hopeless difference of endowment; but between the large body of fairly successful men and the larger body of less successful men the determining difference appears to be the degree and persistence of effort. No one need be a genius to improve his standing in these respects.

In fact, the boy who is not a genius and who knows it, who expects to gain nothing easily, and who early forms the habit of striving to do his best, has far better chances of ultimate success than the boy of brilliant parts who easily surpasses him in school without half trying, and who thus gets used to giving less than his best.

Most of our schools and colleges in America are inadequate challenges to youth of su-

perior talents. Such youth are, therefore, in greater danger than their companions of moderate ability, for whom our institutions are primarily conducted. If we took as solicitous care of the 5 per cent. of the abnormally brilliant as we do of the 5 per cent. of the abnormally dull, we would not retard the superior students with standards of mediocrity. We would require them to do *their* best, regardless of the "standards" of the school. "The worst fault," says Professor Canby, "into which our age-long service of mediocrity has led us is a weak-kneed, pusillanimous deference to mediocrity itself. The college has borrowed the vice from every-day American life." For a boy of sound health and really superior parts to spend four years in meeting the usual, actually required "requirements" of a "standard high school" or of a "standard college" is pretty hard on the boy. However great the promise of youth, it is not likely to become the performance of manhood if the candidate habitually falls short of the possible performances of youth.

Exceptions that Test the Rule

There are evidently other exceptions to the rule that the promise of youth becomes the performance of manhood. These exceptions are doubtless due in part to the fact that our unscientific methods of grading sometimes record the passing moods or the permanent idiosyncrasies of teachers as well as the achievements of students. School marks are not always what they seem to be. Professor Jones gives a boy 78 per cent. in history. Seventy-eight per cent. of what? Nobody knows. Definite per cents. of undefined quantities deceive us by the appearance of exactness. Professor Black gives another boy 93 per cent. in Latin. Ninety-three per cent. of what? We can only guess.

Much worse for our present purposes is the fact that we have no means of comparing the work of the two boys. Whether attaining a grade of 78 in history is more or less of a triumph than attaining a grade of 93 in Latin, we do not know. In certain institu-

tions with which we are familiar we think we do know; but the large bodies of statistics here used as evidence are necessarily taken at face value. The shortcomings of our methods of marking students, until recently in almost universal use, surely account for some of the cases in which academic distinction has not led to corresponding distinction in later life.

Other cases are due to the sudden appearance in later life of more powerful impulses for work than those of school years. A boy who has sauntered along the primrose paths of college life contrives to graduate. Suddenly he faces death, or loses his property, or falls in love, or goes to war, and forthwith he is as a man born again. Inheritance, which always preponderates over environment, now forms an alliance with incentive. Traits which, with adequate motives, would have won their way to class honors are now put to hard work. Success comes! And lo, how many nimble minds there are to jump from a single case to the generalization that studies do not count.

Yes, there are exceptions. As a college undergraduate, you have as much right as any man to count on being one of them, and it is the most comforting thought you can cherish. Of course the law of chance is overwhelmingly against you; but all courts are notoriously slow in dealing out justice. While you wait, nobody can prove that you are not an exception, and you can rest secure in the belief that the law can never catch you. Eat, drink, and be merry, for to-morrow you do not expect to die.

There is another group of students to whom we should here pay our respects—those who drop out before graduation. The Commencement program is not as respectful to them as a newspaper in reporting a horse-race; it does not even mention the fact that they "also ran." Yet many of them assure us that they could do well in their studies if they cared to take the trouble. What shall we say to them? Chiefly this: that "not caring to take the trouble" is itself an alarming symptom. Ability without the disposition to use it is like gasoline without

a spark. It wins no races. It would seem that dropping out of college not only implies a predisposition to drop out of every race before the finish, but as well a smaller chance of life itself. Of five Harvard classes, twenty-five years after graduation, only 15 per cent. of those who had graduated were dead, and 32 per cent. of those who dropped out before graduating.

It is true that some colleges are so loosely put together that a student can loaf until the last week of the term and then scrape through by a kind of death-bed repentance. Not so in the severer trials of life beyond the campus. "In the moral world," as Charles R. Brown puts it, "a man is judged not by the few holy emotions he can scramble together in the last fifteen minutes of earthly existence; he is judged by the whole trend and drift of his life." And this is just. What a man is content to be, day after day, when all runs smoothly, that, in all probability, he will find himself to be when a crisis comes. It is evident that no man in a responsible position can meet a crisis safely with the

kind of effort that in college brings the grade of mediocrity.

"*Luck Beats Science Every Time*"

In much that I have said about success I have used the mathematical term "chance," a term as far removed as any term could be from the popular notion of luck. If all these studies prove anything, they prove that there is a long chain of causal connections binding together the achievements of a man's life and explaining the success of a given moment. That is the non-skid chain that keeps him safe in slippery places. Luck is about as likely to strike a man as lightning, and about as likely to do him any good. The best luck a young man can have is the firm conviction that there is no such thing as luck, and that he will gain in life just about what he deserves, and no more. The man who is waiting around for something lucky to turn up has time to see a preparedness parade pass by him—the procession of those who have formed the habit of turning things up. In a saloon at a prairie station in Montana I saw

the sign, "Luck beats science every time." That is the motto of the gambler—in the saloon and in the class-room. But all men who have won durable distinction are proof that science beats luck—science operating through the laws of heredity and habit.

Even fathers who have proved all this in their own lives are loath to try it on their sons. "What I most enjoy," says Doctor Crothers, "is to experiment with a successful self-made man. He is an easy mark and will pay liberally for an educational gold brick. He has made his own way in the world by force of ability and hard work. But when it comes to his son, he is the most credulous creature alive. He is ready to believe that something can be had for nothing. When he sends his son to college the last thing he thinks of is that the lad will have to work for all that he gets. He has an idea that a miracle of some kind is about to be performed in the enchanted castle of the Liberal Arts. The boy will have all sorts of things done for him. He will get mental discipline, which is a fine thing to have. Certain studies

are rich in discipline. If he doesn't elect these disciplinary studies he will doubtless get all the mental discipline he needs by living in the same town with a number of hard-working professors. Every college which has been a long time on the same spot has ideals. The youth is supposed to get these ideals, though he is unconscious of them at the time. In after-years they will be explained to him at the class reunions and he will be glad that he absorbed them. Toward the end of his college course he will show signs of superiority to his parents, and there will be symptoms of world-weariness. He will be inclined to think that nothing is quite worth while. That tired feeling is diagnosed as 'Culture.'"

VII

THINKING BY PROXY

IF we may trust the general conclusions from which this fragmentary evidence appears to allow no escape, we shall have to regard a quickening of intellectual enthusiasm as the first need of college students.

An undergraduate, writing his "Confession" in the *Outlook*, admits that he knows of a few students with a zeal for knowledge so intense that not even a college course can quench it; but everything, he says, "unites to extinguish it—the quality of the instruction, the lack of any demand for scholarship, and, above all, the alluring ease of the environment."

However misleading may be the remarks of this undergraduate, or those of Mr. Dooley, as to details, both of these amiable critics

have hit upon the chief weakness of the American college: our students have too much done for them and too little required of them. Mr. Dooley says that, nowadays, when a lad goes to college, "the prisidint takes him into a Turkish room, gives him a cigareet, an' says, 'Me dear boy, what special branch of larnin' w'u'd ye like to have studied f'r ye be our compitint profissors?'"

Our students are not to be blamed for their attitude toward scholarship. Our schools have developed it. Our competent professors —aided and abetted by lecture systems, and tutors, and writers of text-books, and distributors of printed notes—do too much thinking for college students—keep them too long on diluted diets of predigested food. Our students, like our infant industries under the motherly policy of protection, are coddled long after they are able to stand on their own feet. And until a boy has once had the exhilarating adventure of standing, even with shaking knees, on his own feet intellectually he does not know what college is all about. It

is no wonder that the incidental amusements seem to him most vital.

You can lead a boy to lectures, but you cannot make him think—at least, not often by this, the easiest of all methods of instruction. It is possible for a student to graduate from almost any college without an original idea in his head. If he will give back to his professors what they have given him in lectures and in prescribed books he may don a cap and gown and receive a degree. The highest grade, it is true, is reserved in some colleges for those who show independence of thought (which is almost enough to account for the positive correlations we have found everywhere between highest grades in college and highest success afterward); but the "gentleman's grade" is still the badge of mediocrity which many present as their sole passport. I have known students to pass courses in mathematics and formal logic by memorizing selected pages, without the vaguest idea of what it all meant.

When a student has to write on any subject his first idea, as a rule, is to look it up in a

book. The college girl who, when asked to write a description of a sunset, applied to the librarian at once for a book on sunsets, was following the usual method. When students undertake to prepare for a debate and cannot find an argument in the library, all put together, they usually want to change the subject. Another substitute for thinking is suggested by a letter I received the other day which read:

"Dear Sir,—I have been chosen for our champion State debate on Government ownership of railroads. Please send me six points on the affirmative. Thanking you in advance, Yours truly."

Even the thesis required of a candidate for the degree of doctor of philosophy, which is supposed to be original work, does not always reveal original thinking. Some of these theses are no less mechanical and no more valuable than the accounts a bank clerk winds out of his calculating-machine. In many colleges boys are virtually required to support their teams, turn up their trousers, choose their companions, and walk across the

campus according to tradition. Such courses might better be elective; but thinking should be compulsory.

For a number of years I had young graduates of a number of theological schools in my classes in argumentation. They were difficult to teach because, in many cases, they appeared to have acquired fluency of speech without the habit of thought. They did not distinguish between assertion and evidence. As preachers they had become accustomed to assert what they pleased, with no one to answer back—a dangerous experience for any one, prince or pauper, pope or prelate. They appeared to be disciples of the author of a text-book on "Oratory" for young preachers who recommends his own method, as follows: "I went to my room, locked the door, placed the Bible before me on the mantel, opened it at random, and then on whatever passage my eye chanced to rest, proceeded to give a discourse of ten minutes. . . . At first I found it very difficult to speak so long right to the point. But then, if I couldn't talk *on* the subject, I would talk *about* it—making

good remarks and moral reflections—being careful to keep up the flow, and say something to the end of the term allotted for the exercise."

Intellectual Enthusiasm and Headaches

Not all the blame for present conditions should be laid to parents and alumni. They, too, are the products of our own teaching. The traditional conservatism of colleges is not stimulating to thought. New ideas disturb the academic calm. The teacher is most comfortable who stays in the beaten path, teaching what he was taught and teaching it in the same way. Unless the teacher takes resolute measures to resist the deadening influences of his position, his thinking is in danger of confinement to a small and diminishing circle. This is the danger implied in the saying that every occupation has its disease: painters have painters' colic, plumbers have lead poisoning, and college professors have the academic mind. The non-conformist gets into trouble. Woodrow Wilson, as president of a university, had too many

new ideas. He made men think about questions which they preferred to regard as settled once and for all.

Certain professors have been refused re-election by several universities, apparently because they set their students to thinking in ways objectionable to the trustees. It would be well if more teachers were dismissed because they fail to stimulate thinking of any kind. We can afford to forgive a professor what we regard as the occasional error of his doctrine, especially as we may be wrong, provided he is a contagious center of intellectual enthusiasm. It is better for students to think about heresies than not to think at all; better for them to climb new trails, and stumble over error if need be, than to ride forever in upholstered ease on the crowded highway. It is a primary duty of a teacher to make a student take an honest account of his stock of ideas, throw out the dead matter, place revised price marks on what is left, and try to fill his empty shelves with new goods.

The "undergraduate" does well to com-

plain of the "alluring ease of the environment," for the growing tendency toward luxurious living is one cause of the wane of intellectual enthusiasm among college students. The New England colleges one hundred years ago provided a better environment for study than they provide for all their students to-day, and the most magnificent of modern graduate schools has yet to show whether it will prove more stimulating to scholarship than the humblest college of a generation ago.

Even the large universities of our frontier States have increasing numbers of boys who appear to have lost the power of walking from one college building to another. The freshman, stretched out in a barber's chair, with one man working at his head, another at his feet, and a woman at his hands, often acts as though he expected to have his mind taken care of with as little effort on his part.

College fraternities, on the whole, have made matters worse. Even their efforts in recent years to prod their delinquent members seem to be prompted by other than in-

tellectual interests. The history of fraternity houses at some colleges is a record of organized competition in luxury, usually maintained on borrowed money.

Another obstacle to intellectual enthusiasm is the dominance of intercollegiate athletics. Out-of-doors games should provide recreation as a preparation for study rather than as a substitute for study. But, intercollegiate athletics having won supremacy, students do not tolerate conflicting interests. Their own publications, the country over, if distribution of space is a true criterion, indicate that they regard intercollegiate athletics as more important than the combined offerings of art, music, literature, social service, politics, philosophy, and religion. This excessive interest in athletics by proxy is antagonistic to scholarly ambitions and to the cultivation of habits of sustained thinking.

Without habits of this kind students are not likely to find their way to religious foundations. No great truth comes without lasting incentives for the pursuit of truth. Transient and secondary interests in thinking

will not suffice. Many college students who think a little about religion find the experience overwhelming. Encountering doubts concerning certain beliefs which they had once accepted without question as essentials of religion, they are inclined to give up everything rather than make the effort necessary to achieve new religious convictions. It is easier to have no convictions. Almost any course is easier for the young people of our time than staying with their difficulties, and bearing the birth-pains of new ideas, until they have builded their own durable bases of faith. For them a little thinking is a dangerous thing. They must come to feel the zest of the struggle—the keen joy of studying their way through—until they can say with Mrs. Browning, "If heads that think must ache, perforce, then I choose headaches."

"*Let Well Enough Alone*"

The undergraduate who is really eager to excel in any life-work, and who is brave enough to face the facts, will take down that sign from the walls of his room, "Do not let

your studies interfere with your college education," and replace it with this one: "Do not let your College Life interfere with your life's ambition." The boy without ambition will take for his motto, "Let well enough alone," oblivious to the fact that people who are content to let well enough alone rarely do well enough.

At a convention of teachers not long ago a speaker ridiculed a German boy who, upon failing in a recitation, put his head upon his desk and cried. He said he had never seen such a boy in the schools of this country. He might have added that in this country we *do* have the spectacle of boys, grown almost to manhood, coming off the gridiron crying because they have lost a game. If boys must cry, the German student apparently chose the better time, for nothing seems to promise failure in the tasks of to-morrow with greater certainty than failure in the studies of to-day, whereas the most passionate champions of intercollegiate athletics have never presented evidence of correlation between winning games in college and winning success in life.

In reply to this statement, an enterprising writer has presented, under the title of *Pigskin Chasers in the Game of Life*, a list of ninety football-players who are said to have attained prominence in various careers. This list has been published in scores of newspapers as sufficient proof of correlation between winning games in college and winning success in life. As an argument, it is beautiful in its simplicity. It is deficient, however, in two respects. First, to make its task easier, it substitutes, in the argument to which it replies, the phrase "*playing* games" for the phrase "*winning* games"; second, it ignores twenty thousand, more or less, of the men who have played on intercollegiate football teams and selects only those that serve its own purposes; thus naïvely ignoring both of the real questions at issue—namely, the scholarship achievements of its successful list of players, in comparison with the achievements of all other students, and of all other players. If proof were as simple a matter as this, it could be shown by precisely the same method that there is a

correlation between success in life and the length of a man's name, or his room number, or his date of birth, or any other chance event. Nothing is easier than to select only those cases that favor one's preconceived ideas and leap the gap to a generalization. Nevertheless, this newspaper argument—the lacking every safeguard of the methods it pretends to use—doubtless convinces more people than the most rigorously scientific, statistical evidence—because it tells them what they want to believe to be true.

As I look back over all my school-days I think with deep gratitude of the oldest master in the public schools of Boston, whose motto was, "One hundred per cent. or zero." Nothing short of perfection satisfied him. We all knew it, and day after day we toed the mark.

A boy came home from school the other day and said to his father, "I got one hundred per cent. in school to-day."

"Did you?" exclaimed the proud father. "In what subject?"

"Oh, I got fifty per cent. in arithmetic and fifty per cent. in geography."

What that kind of one hundred per cent. promises for the future can be predicted with little chance of error.

"A college professor," said a senior in his Commencement part, "is a man greatly beloved by his students—after they graduate." A wise teacher knows that he can afford to wait many years for the verdicts of his students; a wise student knows that he cannot afford to wait; he must choose the hardest taskmasters now. Among teachers the greatest number of criminals are not those who kill their young charges with overwork, but those who allow them to form the habit of being satisfied with less than the very best there is in them.

Ruskin had no patience with people who talk about "the thoughtlessness of youth" indulgently. "I had infinitely rather hear of thoughtless old age," he declared, "and the indulgence due to *that*. When a man has done his work and nothing can any way be materially altered in his fate, let him forget his toil, and jest with his fate, if he will;

but what excuse can you find for wilfulness of thought at the very time when every crisis of future fortune hangs on your decisions? A youth thoughtless! when all the happiness of his home forever depends on the chances or the passions of an hour! A youth thoughtless! when the career of all his days depends on the opportunity of a moment. A youth thoughtless! when his every act is a foundation-stone of future conduct, and every imagination a fountain of life or death! Be thoughtless in *any* after-years, rather than now."

Now let the student profit by the experiences of the thousands who have gone before and greet his next task with the words of Hotspur before the battle of Shrewsbury:

> Oh, gentlemen, the time of life is short;
> To spend that shortness basely were too long,
> If life did ride upon a dial's point,
> Still ending at the arrival of an hour.

PART II

VIII

SHOULD SPECIALISTS SPECIALIZE?

WHEN a man has made up his mind that a student should study, the next question is, what should he study? Should he plan to become a specialist? If so, should he specialize?

Tolstoy, in his *Fables for Children*, does not tell us whether specialists should specialize, but he does tell us about an Indian King who ordered all the Blind Men to be assembled. When they came he ordered that all the Elephants be shown to them. The Blind Men went to the stable and began to feel the Elephants. One felt a leg, another a tail, a third the stump of a tail, a fourth a belly, a fifth a back, a sixth the ears, a seventh the tusks, and an eighth a trunk.

Then the King called the Blind Men, and asked them, "What are my Elephants like?"

One Blind Man said, "Your Elephants are like posts." He had felt the legs.

Another Blind Man said, "They are like bath-brooms." He had felt the end of the tail.

A third said, "They are like branches." He had felt the tail stump.

The one who had touched the belly said, "The Elephants are like a clod of earth."

The one who had touched the sides said, "They are like a wall."

The one who had touched a back said, "They are like a mound."

The one who had touched the ears said, "They are like mortar."

The one who had touched the tusks said, "They are like horns."

The one who had touched the trunk said that they were like a stout rope.

And all the Blind Men began to dispute and to quarrel.

Hasty Specialists

Every now and then a Blind Man seeks admission to college for the avowed purpose

of learning all about an elephant's trunk without knowing anything about the elephant. He objects to taking even a half-course on elephants' tusks because he cannot see that the subject has any practical connection with his specialty. Every now and then a boy says to his teachers: "I want to study English composition. I have been told that I have unusual talent as a writer. I must not waste time. I am already eighteen years old. I cannot afford to take courses in history and philosophy and science. My specialty is writing." It is sometimes difficult for such a boy to comprehend fully what a great convenience it is, for one who wishes to write, to have something to say.

Then there is the man who is ambitious to become a public speaker. He does not care to study logic and psychology and history. Not at all. Those studies may do very well for people who have plenty of time and no definite aim in life. As for him, he wishes to become a public speaker, and therefore he desires only a course in public speak-

ing, and that a brief one. Why waste time? The alluring man, in the advertising columns of the magazine, cries out, "I can make you a convincing speaker in fifteen minutes a day." As for something to say, have we not been assured a thousand times that fifteen minutes a day and a five-foot shelf of books are sufficient for a liberal education?

One trouble with the hasty specialist is that he defeats his own purpose. He cannot know all about an elephant's trunk without knowing which end it is on and why. He cannot be an expert in the care of human eyes without first knowing the human body. A specialist who is only a specialist is no specialist at all. Specialization without a broad foundation is a contradiction of terms.

A specialist is supposed to have a thorough knowledge of one comparatively small field, but he cannot understand one small field except in its manifold relations to other fields. The greatest specialists—to use a phrase of Doctor Crothers's—"specialize in the humanities." The greatest colleges—to use a

phrase of Matthew Arnold's—help men to see life steadily and see it whole. The liberal curriculum is designed to furnish every man with lasting means and incentives for measuring the narrowness of his own mind.

When, by specializing, we mean deliberately narrowing the scope of one's knowledge and appreciation, we mean a kind of concentration of effort which may prepare for certain routine work, directed by other people. It cannot prepare for intelligent leadership. The kind of specialized preparation which means first breadth and eventually leadership has no royal short cut.

Cultural vs. Practical Studies

Should we, then, choose studies which are practical or those which are cultural? Of all educational controversies, that is the most familiar, the most hotly pursued, and perhaps the most futile. The Blind Men in Tolstoy's fable disputed and quarreled to no purpose. Now, this quarrel is futile because there is no such thing as a purely practical subject and there is no such thing as a purely cultural

subject. The naïve division of all studies into those which are useful and those which are merely ornamental has doomed to confusion from the start much of our modern discussion concerning the relative values of vocational high schools and classical high schools, of colleges of liberal arts, on the one hand, and technical and professional schools, on the other hand.

No subject can be sensibly considered apart from the animating purpose of the teacher, the attitude of the student, and the dominant spirit of the institution. Any subject may be partly cultural—dressmaking, for example, and sign-painting and blacksmithing. Under certain conditions, for certain persons, such studies would be chiefly cultural. Any study, on the other hand, may be practical, as Latin was in the Middle Ages for every one who studied it, and as it is to-day for every one who teaches it. To attempt to divide the curriculum of lower schools or higher schools into practical and cultural subjects is to ignore the meaning of specialization.

It is more illuminating to attempt to classify subjects of study as *immediately practical* and *ultimately practical*, as *narrowly cultural* and *broadly cultural*.

IX

ULTIMATELY PRACTICAL STUDIES

THE history of the American college curriculum begins with the Latin, Greek, mathematics, and moral philosophy of the Harvard College course of 1636, and extends through the modern period of demand for obviously useful studies down to the twentieth-century agricultural college with its array of courses from weeds to stock-judging, subtropical pomology, pork production, higher basketry, fancy cooking, and business correspondence. The dominant tendency in America is toward the "practical."

What shall we say of this far-reaching modern movement to adapt education to the immediate needs of all people? What shall we say of the teaching of trades to the children of elementary schools? What shall we

say of the overshadowing of the remotely practical subjects of the secondary-school curriculum by immediately practical courses? What shall we say of the modest little catalogue of the old college of liberal arts and the thousand-page register of the modern university?

We must say that this trend in education is productive of good—indeed, with certain qualifications, it is an inevitable and indispensable gain. The historian of the next century, looking back upon our time, will wonder at the unaccountable persistence of our schools in teaching to 90 per cent. of their students some subjects which had for them neither immediate nor ultimate practical value.

The new endeavor to bring to the pupils of each grade in each city the education which school statistics prove that the majority of them will immediately need is a hopeful tendency; for the stability of a democratic community depends in the first instance upon the widest possible extension among its people of the capacity for productive labor.

The average length of a boy's schooling in the United States is now less than six years. The best we can hope for is a gradual increase of this average. Meantime, an immediately practical education is a necessity for all those whose formal education must be comparatively brief. At the best, few human beings have extraordinary intellectual powers. The great majority of men and women are dependent upon leaders. They must be producers in activities that are not too exacting.

This may sound like heresy in a country which began its career by declaring that all men are born free and equal. Democracy has often tried to abolish the hindmost by decree, and our schools have long proceeded on the assumption that all children are fit for abstract forms of higher education. But when we face the facts that science ruthlessly thrusts before us concerning individual differences among human beings we are forced to the conclusion that we need not less, but more education of immediately practical types.

Such education is and will be supported at public expense, for a general level of intelligence and efficiency is an obvious and a primary need. More vocational education will come, and better education, because it will be based on quantitative studies of aims, needs, and values—of educational processes and results, measured with precision. Even in school administration, guesses, opinions, and prejudices are gradually giving way to science.

Our public schools will not be overweighted, however, with vocational studies, for, in the first place, the way ahead must always be kept open for exceptional students. Possible leaders must not be led into blind alleys. In the second place, every man is not only a producer, but also a consumer and a citizen. Intelligent consumers and intelligent citizens are at least as important as efficient producers.

Education for Leadership

But a broad table-land of general efficiency and intelligence is not enough. A thousand pleasant foot-hills will not take the place of one Mount Hood. We must have leaders as

well as artisans, exceptionally well-equipped men in every domain—in literature, in sculpture, in painting, in architecture, in music, in journalism, in politics, in education, in the ministry, in medicine, in statesmanship. A thousand lawyers, however true to their traditional routine, cannot take the place of one William Howard Taft; a thousand teachers, however conscientious, cannot take the place of one Charles William Eliot. We must have both the foot-hills and the mountain peaks, both the followers and the leaders. And the power to develop leaders who are really superior men is the final test of the college as it is of democracy. It is because training for leadership is the supreme function of the college that so much attention is here given to the undergraduate scholarship records of leaders in every domain of human aspiration.

Education for such leadership is no less practical than the education of plumbers and bookkeepers. That is the gist of the matter. In our haste to prepare every boy for a special job, let us throw off our blinders—especially

those of us who regard ourselves as "practical" men. I repeat it: education for such leadership is no less *practical* than the education of plumbers and bookkeepers. Yet the chief subjects of the liberal curriculum are usually called cultural, not useful. History, sociology, government, music, fine arts, literature, logic, psychology, philosophy, religion, and various sciences presented as liberal rather than as technical education—mathematics, biology, physics, chemistry, and astronomy—these subjects are often condemned as impractical. I call them intensely practical. No subjects, properly pursued, are more practical—that is, ultimately practical—for the teacher, the jurist, the editor, the minister, the banker, the city commissioner, the statesman, the legislator, or for the responsible heads of hundreds of business enterprises dealing with large numbers of human beings.

Liberal Studies a Practical Investment

In all the evidence here set forth tending to prove that success in scholarship leads to

success in later life, no account whatever has been taken of the subjects studied. The correlation appears to prevail, year in and year out, in every part of the country, in every type of institution, regardless of the individual courses of study. What grade of work a boy does in the subjects of his choice makes all the difference between notable success and comparative failure in his life-work; but it does not appear, from all our statistics, that it makes much difference which subjects a boy elects.

We should not overlook the fact, however, that the college courses of study of the thousands of "successful" men included in our statistics were virtually devoid of immediately practical subjects. These men did not have the advantages of that modern "college" which "offers astrology, aviation, Bahaism, bill-collecting, and Esperanto." Sixty-two per cent. of the House of Representatives and 68 per cent. of the Senate of the United States are college graduates whose schooling was chiefly "liberal" rather than "practical": from our college graduates—a

body of men constituting less than 2 per cent. of those eligible for election to Congress —we have chosen more than 62 per cent. of our national leaders. At one time, not long ago, the ranking officer in the United States Army, the president of the Senate, the speaker of the House of Representatives, and the chief justice of the Supreme Court were all graduates of one small college of liberal arts —Bowdoin. Included in *Who's Who in America* and in Appleton's *Cyclopedia of American Biography* are several hundred times as many college graduates as non-graduates, in proportion to the total numbers in each group. Evidently, a liberal education is for many men a practical investment.

But practical as such liberal studies may be in the long stress of a great life-work, students may miss their higher values through pursuing them for immediate utility. The dean of the Agricultural School of a great university was urged by professors of literature, history, and philosophy to have more of these courses for students of agriculture.

"Certainly," replied the dean, "we want such studies, but make them as practical as possible." Immediate and obvious utility he had in mind. His answer illustrates the weakness of the so-called liberal studies as often presented in technical schools. Without the liberal spirit the studies are no longer liberal. The direct pursuit of culture, like the pursuit of happiness, is a futile quest. In college, as elsewhere, he who would find his life must lose it, and he who loses his life will find life and find it more abundantly.

Short Cuts to a Liberal Education

I have contrasted narrowly cultural study with broadly cultural study, immediately practical education with ultimately practical education. The one trains people to meet old situations in prescribed ways; the other enables men and women to meet new situations, analyze them, discover the issues involved, and develop new solutions in new crises. The one may be short; the other is necessarily a long preparation. But do we rightly condemn any investment because its

returns are not immediate? The apple-tree is not less useful than the turnip-plant because it requires more time and culture. It has been well said that a baseball-pitcher ripens early, but a Supreme Court justice is a rather mature product.

Preparation for leadership does require time. Nowadays people take their pleasure, travel, exercise, business, dancing—even marriage, divorce, and bankruptcy—at high speed. Some people expect to acquire an education at the same pace. They would "make culture hum" as they would boom a town. There is a widely published advertisement that guarantees success to any one who will attend a certain business college for six months. Correspondence schools undertake to prepare students for anything so quickly that a college course seems a waste of time.

Of late, men have made fortunes in a year or two by exploiting chewing-gum, and defacing the landscape with the astounding announcement that the gum is round. Who can resist buying gum that's round! At

the same time chewing-gum types of education have been offered for sale in small packages. The buyer soon discovers that the flavor is gone, but he can keep up the motions until a new kind is offered in a new shape and a new wrapper. It is a barren year that does not produce a new nostrum that will cure anything in ten days, and a twin-six-cylinder education that will surmount all difficulties at top speed.

Seeing the Whole Elephant

The early years of the twentieth century have made notable advances in professional and technical education. Medical schools have steadily improved their teaching and their equipment. Some of the weakest and most pretentious of them have been forced to close their doors. Some of our law-schools have developed courses of study that are broadly educational, not merely preparation for the routine practice of law. Agricultural colleges have come to their own, and are now preparing men for productive activities that were, until lately, impossible. The better

schools of engineering have made such use of modern scientific discoveries that their graduates now perform, with certainty of success, feats that seemed impossible to the previous generation. Schools of dentistry and pharmacy, of advertising and household arts, of business and commerce, have brought their students closer to vocational problems. There are technical schools striving to prepare for almost every position in life, from pearl-diver to aviator, and the aim is always efficiency. Their courses are, for the most part, immediately practical, and their students, for the most part, are bent on acquiring the greatest possible amount of obviously useful information and experience in the shortest possible time.

But there are careers of vast importance to mankind for which all the technical and professional schools of to-day seem to offer no broadly valuable preparation. The world needs to-day, as it has always needed, ministers of the gospel with the wisdom, zeal, and inspiration of the missionaries of old. The world needs to-day, as never before, genuine

leadership in the realm of journalism. The world needs to-day, more than it yet knows, leaders equal to the task of improving human life in manifold forms of social service. The world needs to-day in commerce, in manufacturing, in banking, in mining, in distribution, in transportation, men with a conception of the meaning of their enterprises and their opportunities far beyond the scope of technical preparation. The world needs to-day available men and women equal to the tasks of leadership in the government of our States, or our nation, especially of our cities.

We have had leaders of great stature in the past—prophets, editors, inventors, social reformers, captains of industry, poets, statesmen—but the greatest of them, in so far as they have been prepared for their life-work by formal education, have depended, not on brief vocational schooling, but on the broadly cultural and ultimately practical education of the college of liberal arts. Perhaps that is why the dean of the leading school of technology in America provided for his own sons, as a basis for professional

and technical studies, a course of four years in an old college of liberal arts. Perhaps that is why the leading schools of law and of medicine and of business administration in America make college studies a requirement for admission. Again and again men have acknowledged the usefulness of their studies in technical and professional schools; but they have added that it was the broadly humanitarian education of the old college that inspired them for their life-work and enabled them to see it whole. The poor Blind Men of the fable could not see the whole Elephant: blind specialists have similar troubles.

Finishing Schools and Beginning Schools

Liberal education may bring material rewards as a by-product. It usually does, because the kind of education that makes a boy worth a dollar a week more a year from now may make him worth ten dollars a week less ten years from now. Vocational schools that lead directly to the pay-envelope are "finishing" schools, since they tend to end the

possibilities there. The liberal, ultimately practical education—the necessary basis for specialization—is the work of a "beginning" school. A college of liberal arts, properly conceived, is a beginning school, because by the time it sends its men and women out to take up responsibilities in which they will sooner or later become leaders they have just caught a glimpse of an alluring upland road in the morning glow, leading to fields of human service which, but for the college, would have been beyond their imagination. That is the pregnant thought of the last day of a college course: we rightly call that day Commencement. It has been well said that college graduates, more than any other class of men, do what they wish to do, not because of inherited wealth or social position, but because of the emancipating knowledge of opportunity and of self.

Those who do not comprehend the vital significance of the college of liberal arts in our national life, those who do not perceive its mission outside the scope of professional and technical schools and great universities, those

who have acquired the American habit of attempting to estimate educational service in terms of numbers of students, extent of departments, grandeur of buildings, and size of salaries, may not understand an institution concerned with ultimately practical education and therefore content with small numbers. Yet training for the highest type of leadership is not a wholesale business, is not, in fact, a business at all, is personal rather than mechanical, and, therefore, has no concern with quantitative standards of success. It is still true that at a great university a boy may go through more college, but at a small college, more college may go through him.

If all this be true of the old college of liberal arts, why these predictions that it will be crushed out between the nether millstone of the ambitious, immediately practical high school and the upper millstone of the ambitious, immediately practical university? Why has the dissatisfaction with the old college of liberal arts been growing apace? Not because we have had too much of liberal education: far from it. It is because we

have had too little of the old college and too much of the modern attachments. An ultimately practical education is not a by-product of supreme devotion to the immediately entertaining "outside activities" of college life—the elaborately organized hindrances to broadly cultural studies—to mental liberation—to "specializing in the humanities."

THE END